

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION OF

Nathalie Mougin et al.

Group Art Unit: Unassigned

Application Serial No. (Unassigned)

Examiner: Unassigned

Filed: July 16, 2001

Title: NOVEL CATIONIC ASSOCIATIVE POLYURETHANES AND THEIR USE AS THICKENERS

* * * * *

PRELIMINARY AMENDMENT

Hon. Commissioner of Patents
Washington, D.C. 20231

Sir:

Prior to examination, please amend the above-identified application as follows.

IN THE SPECIFICATION:

Page 1, before paragraph 1, insert the following:

Cross Reference to Related Applications:

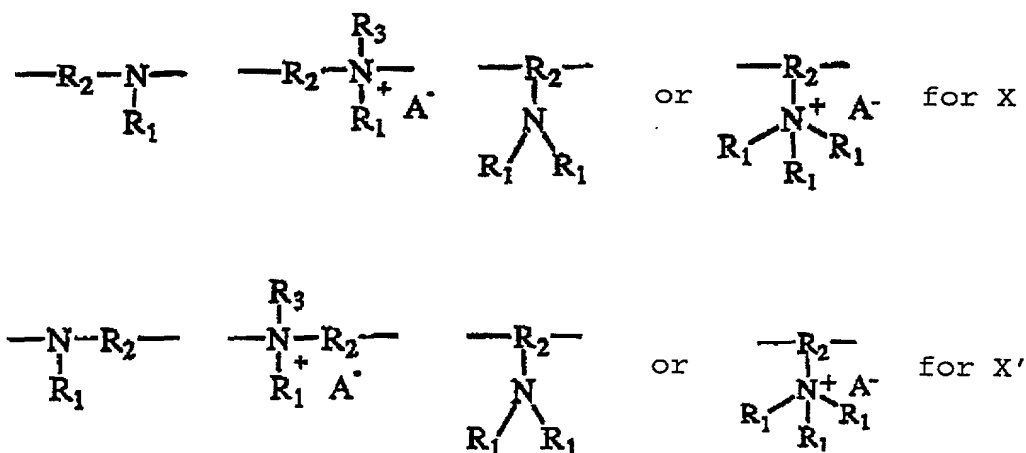
This patent document is related to French Serial No. 0009609, filed July 21, 2000, the content of which is incorporated herein by reference in its entirety.

IN THE CLAIMS:

Please amend claims 3-13 and add new claims 14 and 15 as follows:

3. (Amended) A polyurethane according to Claim 1, wherein R and R' both independently represent a hydrophobic group, X and X' each represent an L>> group, n and p have values between 1 and 1000 and L, L', L>>, P, P', Y and m have the meaning indicated in Claim 1.

4. (Amended) A polyurethane according to Claim 1, wherein R and R' both independently represent a hydrophobic group, X and X' each represent an L>> group, n and p have the value 0 and L, L', L>>, Y and m have the meaning indicated in Claim 1.
5. (Amended) A polyurethane according to Claim 1, wherein R and R' both independently represent a hydrophobic group, X and X' both independently represent a group comprising a quaternary amine, n and p have the value 0 and L, L', Y and m have the meaning indicated in Claim 1.
6. (Amended) A polyurethane according to Claim 1, which exhibits a number-average molecular mass between 400 and 500 000.
7. (Amended) A polyurethane according to Claim 1, wherein R and R' represent a radical or a polymer with a saturated or unsaturated and linear or branched hydrocarbonaceous chain, in which chain one or more of the carbon atoms is optionally replaced by a heteroatom selected from the group consisting of S, N, O and P, or a radical comprising a silicone or perfluorinated chain.
8. (Amended) A polyurethane according to Claim 1, wherein X and X' represent one of the formulae:



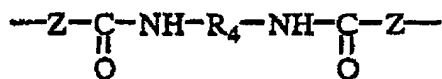
in which:

R₂ represents a linear or branched alkylene radical having from 1 to 20 carbon atoms, which optionally may comprise a saturated or unsaturated ring, or an arylene radical, wherein one or more carbon atoms optionally is replaced by a heteroatom selected from the group consisting of N, S, O or P;

R₁ and R₃, which are identical or different, are a linear or branched C₁-C₃₀ alkyl or alkenyl radical or an aryl radical, wherein at least one of the carbon atoms optionally can be replaced by a heteroatom selected from the group consisting of N, S, O and P;

A⁻ is a physiologically acceptable counterion.

9. (Amended) A polyurethane according to Claim 1, wherein L, L' and L>> groups, which are identical or different, represent the formula:

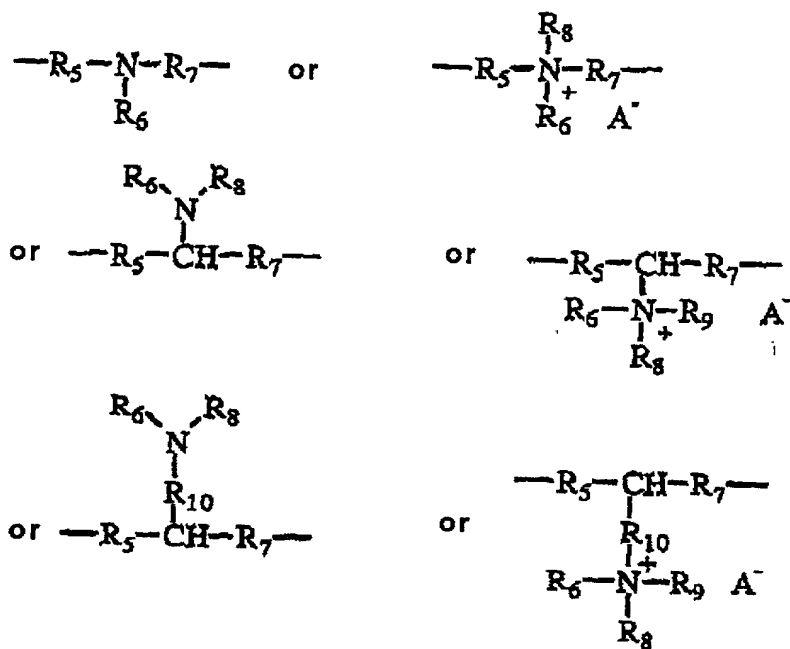


in which:

Z represents -O-, -S- or -NH-; and

R₄ represents a linear or branched alkylene radical having from 1 to 20 carbon atoms, which optionally may comprise a saturated or unsaturated ring, or an arylene radical, wherein one or more of the carbon atoms optionally is replaced by a heteroatom chosen from N, S, O and P.

10. (Amended) A polyurethane according to Claim 7, wherein said P and P' groups, which are identical or different, are selected from the following formulae:



R₅ and R₇ have the same meanings as R₂ defined in Claim 7;

R₆, R₈ and R₉ have the same meanings as R₁ and R₃ defined in Claim 7;

R₁₀ represents a linear or branched alkylene group which is optionally unsaturated and which optionally comprises one or more heteroatoms selected from the group consisting of N, O, S and P, and

A⁻ is a physiologically acceptable counterion.

11. (Amended) A polyurethane according to Claim 1, wherein Y represents a glycol selected from the group consisting of ethylene glycol, diethylene glycol and propylene glycol or a group derived from a polymer selected from the group consisting of polyethers, sulphonated polyesters and sulphonated polyamides.
12. (Amended) A method of using a polyurethane as defined in Claim 1 as a thickener or gelling agent comprising adding said polyurethane to a composition which is to be used for topical application as a cosmetic.
13. (Amended) A cosmetic composition comprising, in a cosmetically acceptable medium, at least one polyurethane as defined by Claim 1.

14. A polyurethane according to Claim 6, which has a number-average content mass ranging from 1 000 to 400 000.
15. A polyurethane according to Claim 7 which has a number-average molecular weight ranging from 1 000 to 300 000.

REMARKS

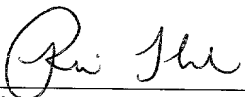
Entry of the foregoing amendment in advance of prosecution is respectfully requested. The amendments conform the claims to U.S. practice and do not affect the scope of any of the earlier claims. In particular, the amendments do not narrow any of the original claims.

In view of the foregoing, this application is believed to be in form for allowance, and such action is hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, he is kindly requested to contact the undersigned at the telephone number listed below.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment.

It is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,
PILLSBURY WINTHROP LLP

By: 
Robin L. Teskin
Reg. No. 35,030

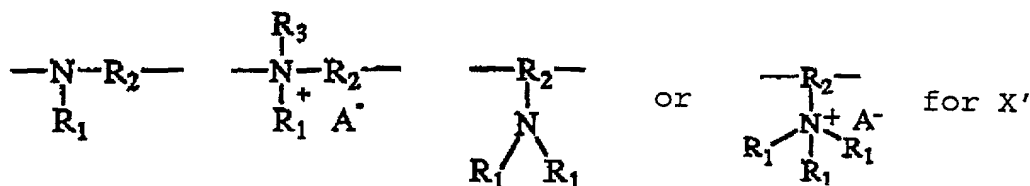
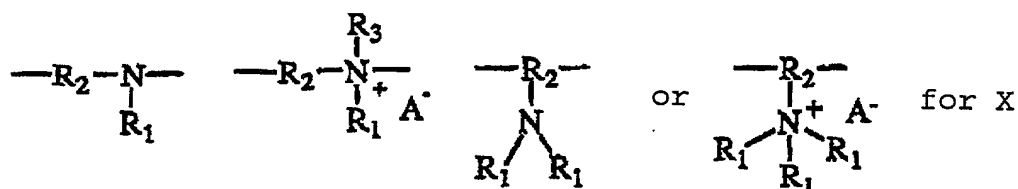
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Date: July 16, 2001

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

3. (Amended) [Polyurethanes] A polyurethane according to [either] Claim[s] 1[and 2], [characterized in that] wherein R and R' both independently represent a hydrophobic group, X and X' each represent an L>> group, n and p have values between 1 and 1000 and L, L', L>>, P, P', Y and m have the meaning indicated in Claim 1.
4. (Amended) [Polyurethanes] A polyurethane according to [either of] Claim[s] 1 [and 2], [characterized in that] wherein R and R' both independently represent a hydrophobic group, X and X' each represent an L>> group, n and p have the value 0 and L, L', L>>, Y and m have the meaning indicated in Claim 1.
5. (Amended) [Polyurethanes] A polyurethane according to [either of] Claim[s] 1 [and 2], [characterized in that] wherein R and R' both independently represent a hydrophobic group, X and X' both indepently represent a group comprising a quaternary amine, n and p have the value 0 and L, L', Y and m have the meaning indicated in Claim 1.
6. (Amended) [Polyurethanes] A polyurethane according to [one of the preceding claims] Claim 1, [characterized in that they] which exhibits a number-average molecular mass [of] between 400 and 500 000[, preferably between 1 000 and 400 000 and in particular between 1 000 and 300 000].
7. (Amended) [Polyurethanes] A polyurethane according to [any one of the preceding claims] Claim 1, [characterized in that] wherein R and R' represent a radical or a polymer with a saturated or unsaturated and linear or branched hydrocarbonaceous chain, in which chain one or more of the carbon atoms [can be] is optionally replaced by a heteroatom [chosen] selected from the group consisting of S, N, O and P, or a radical [with] comprising a silicone or perfluorinated chain.
8. (Amended) [Polyurethanes] A polyurethane according to [any one of the preceding claims] Claim 1, [characterized in that] wherein X and X' represent one of the formulae:



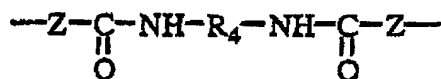
in which:

R₂ represents a linear or branched alkylene radical having from 1 to 20 carbon atoms, which [may or may not] optionally may comprise a saturated or unsaturated ring, or an arylene radical, [it being possible for] wherein one or more carbon atoms [to be] optionally is replaced by a heteroatom [chosen] selected from the group consisting of N, S, O or P;

R₁ and R₃, which are identical or different, [denote] are a linear or branched C₁-C₃₀ alkyl or alkenyl radical or an aryl radical, [it being possible for] wherein at least one of the carbon atoms [to] optionally can be replaced by a heteroatom [chosen] selected from the group consisting of N, S, O [or] and P;

B- is a physiologically acceptable counterion.

9. (Amended) [Polyurethanes] A polyurethane according to [any one of the preceding claims, characterized in that the] Claim 1, wherein L, L' and L>> groups, which are identical or different, represent the formula:

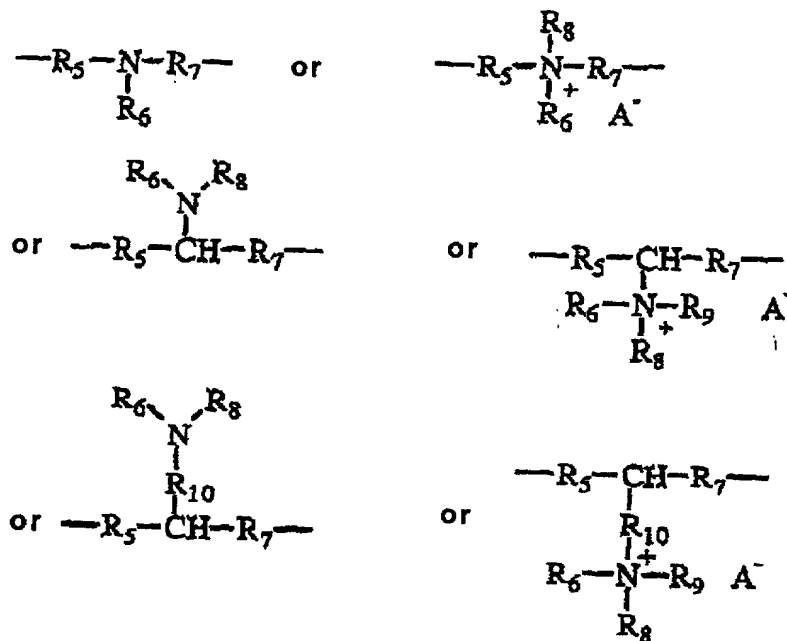


in which:

Z represents -O-, -S- or -NH-; and

R₄ represents a linear or branched alkylene radical having from 1 to 20 carbon atoms, which [may or may not] optionally may comprise a saturated or unsaturated ring, or an arylene radical, [it being possible for] wherein one or more of the carbon atoms [to be] optionally is replaced by a heteroatom chosen from N, S, O and P.

10. (Amended) [Polyurethanes] A polyurethane according to [any one of the preceding claims, characterized in that the] Claim 7, wherein said P and P' groups, which are identical or different, [represent at least one of] are selected from the following formulae:



R₅ and R₇ have the same meanings as R₂ defined in Claim 7;

R₆, R₈ and R₉ have the same meanings as R₁ and R₃ defined in Claim 7;

R₁₀ represents a linear or branched alkylene group which is optionally unsaturated and which [can comprise] optionally comprises one or more heteroatoms [chosen] selected from the group consisting of N, O, S and P, and

A⁻ is a physiologically acceptable counterion.

11. (Amended) [Polyurethanes] A polyurethane according to [one of the preceding claims, characterized in that] Claim 1, wherein Y represents a [group derived] glycol selected from the group consisting of ethylene glycol, [from] diethylene glycol [or from] and propylene glycol or a group derived from a polymer [chosen] selected from the group consisting of polyethers, sulphonated polyesters and sulphonated polyamides.
12. (Amended) [Use of] A method of using a polyurethane as defined in [any one of the preceding claims] Claim 1 as a thickener or gelling agent [in] comprising adding said polyurethane to a composition which is to be used for topical application [with a cosmetic use] as a cosmetic.
13. (Amended) A [C]cosmetic composition comprising, in a cosmetically acceptable medium, at least one polyurethane as defined [in any one of] by Claim[s] 1[to 11].
14. (New) A polyurethane according to Claim 6, which has a number-average content mass ranging from 1 000 to 400 000.
15. (New) A polyurethane according to Claim 7 which has a number-average molecular weight ranging from 1 000 to 300 000.